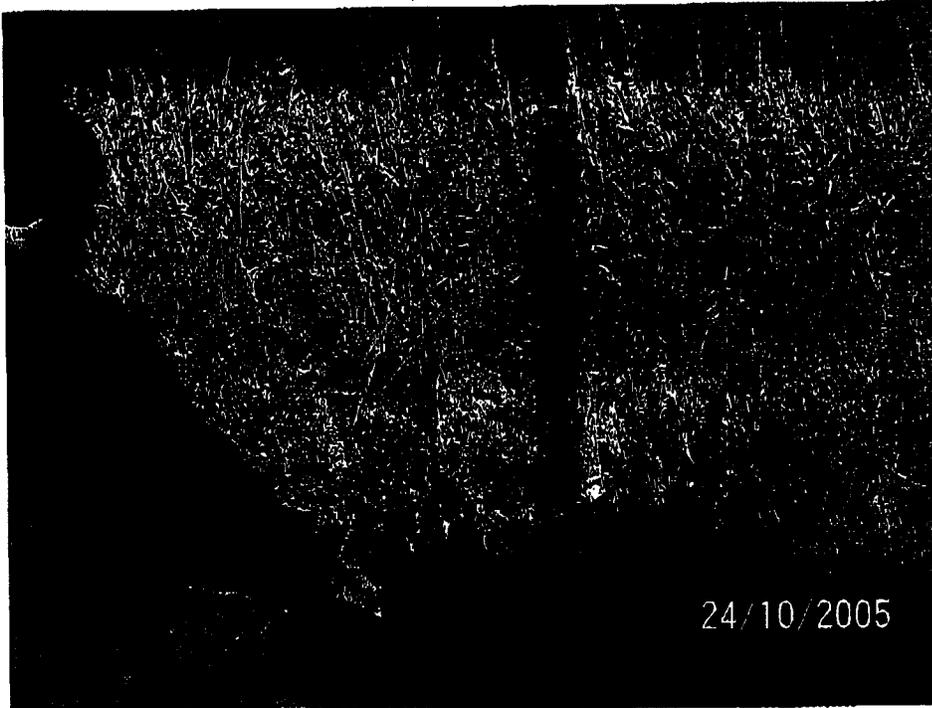


DATE 1/12/07

HB 10+8

**Bainville:***Patrick Murtagh, PE**Montana Engineering and Administration*

- I asked the mayor and council NOT to be here. Bainville is the Montana Town farthest from Helena and since they ranked #2 for TSEP and #5 for DNRC I didn't think it would warrant the transportation cost and the risk of winter travel.
- Bainville had the highest score for need, and one of the highest for financial need. Photos included in the PER and application clearly show the lagoon dikes are severely eroded, vertical in many places and even concave in others.
- The lagoons leak terribly and though there is no visible discharge, at least 85% of the water entering the lagoons leaves through the bottom untreated. The area around the lagoons to the north is marshy, likely largely due to leakage from the lagoons.
- The unauthorized discharge from the leaking lagoons to the groundwater is a violation of the Clean Water Act and the Montana Water Quality Act. Discharge from any lagoon would require a permit through the National Pollution Discharge Elimination System (NPDES), which is actually administered by the State of Montana. A discharge permit would be required to discharge into any surface or ground water.
- As the engineer we went out to measure I/I into the collection system in October 2005 and then again in spring of 2006, during snowmelt. There was quite a jump in water entering the collection system where a small drainage-way crosses the collection pipe. The proposed project includes funding to replace this pipe that may be doubling the flowrate into the lagoons.
- By addressing both I/I and treatment, the project completely resolves the wastewater problem in the most economic manner possible. In addition, the project will use spray irrigation to provide final disposal of the wastewater. I should mention that while we were out in the field doing percolation tests and sampling that we had adjacent landowners request both the irrigation water AND the sludge (We like eastern Montana).



Obvious Dike Erosion at Bainville.

Figure 3.9 Wastewater Flow vs Precipitation (Weekly Total & Max Daily)

